## ABSTRACT

An information apparatus for managing outputting of content to an output device includes a communication unit for communicating with the output device, a user interface for interacting with a user. The information apparatus establishes a communication channel with the output device and receives over the communication channel one or more components associated with the output device enabling the content to be rendered by the output device. The information apparatus conforms the content into one or more output images with the components and generates an intermediate output data including the output images, and delivers the intermediate output data to the output device for rendering.